

REMARKS

Claims 18, 21, 27, 29, 30, 32-34, 38-41 and 63-72 remain pending in this application. Each of the pending claims is believed to define an invention that is novel and unobvious over the cited references. Favorable reconsideration of this case is respectfully requested.

The specification has been amended to correct the informality noted by the Examiner. Therefore, the withdrawal of the objection to the specification is respectfully requested.

Claims 18, 21, 27, and 72 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 7,173,650 to Cohen-Solal et al. in view of U.S. Patent Number 6,678,413 to Liang.

Independent claims 18 and 72 have been amended to recite that the image data from the sensing unit operated in a first mode is processed to obtain higher quality imagery of a interesting target than that obtained by operating the sensing unit in the first mode. The higher quality imagery may be obtained in the claims by at least one of panning, tilting and zooming, using super-resolution algorithms, digitally zooming to the image, and employing different lenses or filters, or using a robotic actuator. In comparison, the cited art describes using pan, tilt, and zoom techniques in order to keep a target centered, that is, simply tracking the target. For example, as described at column 7, lines 30-50, of Cohen-Solal once a target is located, the target is automatically tracked. There is no mention in the cited art of obtaining higher quality imagery of the interesting target than that obtained by operating the sensing unit in a first mode. The systems of the cited art center a target in the field of view of a camera and track the target, please see column 5, lines 9-21 of Cohen-Solal.

In view of the above, it is clear that the claimed invention is not obvious to one of ordinary skill in the art. Therefore, the withdrawal of this rejection is respectfully requested.

Claims 29-30, 32-33, 38-39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen-Solal in view of Liang further in view of U.S. Patent Number 7,020,305 to Liu.

Claims 29-30, 32-33, 38-39 depend directly or indirectly from independent claim 18 and are patentable for at least the reasons discussed above regarding independent claim 18. Liu does not supplement Cohen-Solal or Liang to render the claimed invention obvious.

Regarding independent claim 41, column 6, lines 18-26 of Cohen-Solal describe computing a confidence value when comparing a target in an observed image to a target model. However, there is no disclosure of how this confidence value may be determined.

Liu relates to detecting the movement of an object in the frame, for example, a target's head. In particular, figures 5 and 6 of Liu describe a method of for detecting head motion between two images of a face, please see column 5, line 53 – column 6, line 64 of Liu. The cited sections of Liu in the Office Action describe determining head motion by detecting corners in images matching those corners, using a robust estimation technique to eliminate false matches and the like. Additionally, in Liu, individually model parameters are detected from the image. The model is estimated based on those parameters.

In comparison, independent claim 41, relates to a motion detection module to determine camera motion, as opposed to movement of an object in a frame. Claim 41 also recites that a warping module warps one successive image to another successive image for direct comparison of the images. Additionally, a subtraction module subtracts the warp image from a current image to determine which pixels have moved. Neither Cohen nor Liu relates to at least these claims elements.

In view of the above, it is clear that the cited references do not render the claimed invention obvious. Therefore, the withdrawal of this rejection is respectfully requested.

Claims 34, 40, 63-66, and 70-71 have been rejected under 35 U.S.C. 103 as being unpatentable over Cohen-Solal in view of Liang and further in view of U.S. Patent Number 6,437,819 to Loveland.

Regarding independent claim 64, this claim has been amended along the lines of independent claim 1 to recite that higher quality imagery of the interesting target than that obtained by operating the sensing unit in a first mode is obtained. As described above in connection with independent claim 18, the cited references do not render this claim obvious. Loveland does not supplement Cohen-Solal or Liang to render the claimed invention obvious.

Regarding the other claims in this rejection, those claims depend directly or indirectly from independent claims 18 or 64 and are allowable for at least the reasons discussed above regarding independent claims 18, 41 and 64.

Claims 67-69 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen-Solal in view of Liang in view of Loveland and further in view of U.S. Patent Number 6,570,608 to Tserng.

Claims 67-69 depend from independent claim 64 and are patentable for at least the reasons discussed above regarding independent claim 64. Tserng does not supplement the previously discussed references to render the claimed invention obvious. Therefore, the withdrawal of this rejection is respectfully requested.

Accordingly, it is respectfully submitted that only allowable claims remain pending in this application. Early issuance of a Notice of Allowance is respectfully solicited.


If the Examiner is of the opinion that the prosecution of this application would be advanced by a personal interview, the Examiner is invited to telephone undersigned counsel to arranged for such an interview.

The Commissioner is authorized to charge any fee necessitated by this Amendment to our Deposit Account No. 22-0261.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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